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THE USE OF ERTS-1 IMAGERY IN THE NATIONAL PROGRAM  
FOR THE INSPECTION OF DAMS

NTIS HC \$3-00

Discipline: 8 Interpretation Techniques Development

Subdiscipline: C Classification and Pattern Recognition

ERTS-1 imagery can be useful in locating circular water bodies over 152 m (500 ft) in diameter. Dams on streams can be identified by an abrupt change in stream width. A linear termination on a water body is a reliable indication of a dam, particularly when it is inconsistent with the normal drainage pattern. Care must be exercised to avoid confusing cloud shadows with water bodies. However, the association of a cloud with its shadow usually can be accomplished since the sun angle is noted in the data given on each ERTS image.

The following information generally can be derived from ERTS imagery:

1. The location of water bodies
2. The size and shape of water bodies
3. The identification of dam sites on major rivers
4. The direction of stream flow of major hydrologic networks
5. Relative water depths and/or gross sedimentation patterns

ERTS-1 imagery, in general, does not supply information suitable for determining:

1. Dam height
2. Type of dam construction (concrete or earth fill)
3. Depth of water bodies
4. Location of water bodies less than 6 acres

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